

***** CONFIDENTIAL *****
***** PREDECISIONAL DOCUMENT *****

SUMMARY SCORESHEET
FOR COMPUTING PROJECTED HRS SCORE

SITE NAME: JAUAYS EQUIPMENT COMPANY
CITY, COUNTY: PHOENIX, MARICOPA COUNTY
EPA ID #: AZD009017989 EVALUATOR: Cathy Carr
PROGRAM ACCOUNT #: FAZZ2066BA DATE: 07.03.91
Lat/Long: ? T/R/S: ?
THIS SCORESHEET IS FOR A: PA SSI LSI
SIRE PA Redo Other (Specify) PA review

RCRA STATUS (check all that apply):

 Generator Small Quantity Generator Transporter TSDF
X Not Listed in RCRA Database as of (date of printout) 04/12/91

STATE SUPERFUND STATUS:

 BEP (date) / / WQARF (date) / /
X No State Superfund Status (date) / /

	S pathway	S ² pathway
Groundwater Migration Pathway Score (S _{gw})	19.58	383.21
Surface Water Migration Pathway Score (S _{sw})	*	*
Soil Exposure Pathway Score (S _s)	*	*
Air Migration Pathway Score (S _a)	*	*
$S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$	XXXXXXXXXX	383.21
$(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$	XXXXXXXXXX	95.80
$\sqrt{(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4}$	XXXXXXXXXX	9.79

*Pathways not assigned a score (explain):

No use for surface water downgradient of site. No sources
with haz. substances available to air pathway. No soil
>hrs exposure pathway - site entirely paved. 21-May-1991

GROUNDWATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Projected Score</u>	<u>Rationale</u>	<u>Data Qual.</u>
1. Observed Release	550	<u>0</u>	<u>1</u>	<u>E</u>
2. Potential to Release				
2a. Containment	10	<u>10</u>	<u>2</u>	<u>E</u>
2b. Net Precipitation	10	<u>3</u>	<u>3</u>	<u>H</u>
2c. Depth to Aquifer	5	<u>3</u>	<u>4</u>	<u>E</u>
2d. Travel Time	35	<u>35</u>	<u>5</u>	<u>E</u>
2e. Potential to Release [Lines 2a x (2b+2c+2d)]	500	<u>410</u>		
3. Likelihood of Release (Higher of lines 1 or 2e)	550	<u>410</u>		
<u>Waste Characteristics</u>				
4. Toxicity/Mobility	a	<u>200</u>	<u>6</u>	<u>H</u>
5. Hazardous Waste Quantity	a	<u>10</u>	<u>7</u>	<u>D</u>
6. Waste Characteristics (lines 4 x 5, then use Table 2-7)	100	<u>3</u>		
<u>Targets</u>				
7. Nearest Well	50	<u>2</u>	<u>8</u>	
8. Population ^d				
8a. Level I Concentrations	b	<u>0</u>		
8b. Level II Concentrations	b	<u>0</u>		
8c. Potential Contamination	b	<u>1300</u>	<u>9</u>	<u>E</u>
8d. Population (lines 8a+8b+8c)	b	<u>1200</u>		
9. Resources	5	<u>5</u>	<u>10</u>	<u>E</u>
10. Wellhead Protection Area	20	<u>0</u>	<u>11</u>	<u>H</u>
11. Targets (lines 7+8d+9+10)	b	<u>1313</u>		
<u>Likelihood of Release</u>				
12. Aquifer Score [(Lines 3 x 6 x 11)/82,500] ^c	100	<u>19.58</u>		
<u>Groundwater Migration Pathway Score</u>				
13. Pathway Score (Sgw), (highest value from line 12 for all aquifers evaluated)	100	<div style="border: 1px solid black; padding: 2px; display: inline-block;">19.58</div> ^c		

a Maximum value applies to waste characteristics category.

b Maximum value not applicable.

c Do not round to the nearest integer.

d Use additional tables.

/hrs

Aquifer Evaluated _____

21-May-1991

GROUNDWATER PATHWAY CALCULATIONS

8. Population

Actual Contamination

Well Identifier	Contaminant Detected	Concentration (Note Units)	Benchmark	(A) Apportioned Population Well Serves	(B) Level* Multip.	(A x B)
		<i>none</i>				
Sum (AXB) Level I						
Sum (AXB) Level II						

* Multipliers
 - Level I = 10
 - Level II = 1

Potential Contamination

Distance (miles)	Total Number of Wells Within Distance Ring	Total Population Served by Wells Within Distance Ring	Distance-Weighted Population Values "Other Than Karst" (Table 3-12)* (A)
0 to 1/4	0	0	0
>1/4 to 1/2	0	0	0
>1/2 to 1	0	0	0
>1 to 2	0	0	0
>2 to 3	0	0	0
>3 to 4	1	167504	13,060
Sum (A)			13,060

Potential contamination = $\frac{\text{Sum (A)}}{10} = \underline{1306}$

* For drinking water wells that draw from a karst aquifer, see the Distance-Weighted Population Values for "Karst" in Table 3-12.

Rationale - Jaquays Equipment company AZ0009017989

① A release of contaminants attributable to the site to groundwater has not been documented

② Sources

Solvent Tank

waste oil/solvent tank

concrete sump for washwater - not capable of holding much runoff
stirring around sump

↓ 10

contaminant of these sources ?

③ Net precipitation ~ 3" (HRS)

④ Depth to Aquifer
64'

⑤ Travel Time

0-6' top soil

6'-20' clay caliche, boulders

20'-150' boulders

14', 10^{-2}
35

⑥ tox / mob.

	tox	mob	
PLE	100	1	100
TCE	10	1	10
1,1-DCE	100	1	100
DCA	100	0.01	1
TCA	1000	0.2	200

these solvents may have been used on site in past

⑦ waste quantity

solvent tank = 2-5 g

waste oil/solv. tank = 100 g

sump ⇒

$105g / 500 = < 1$

Default = 10

⑧ nearest well = 3 miles

⑨ 17% of dw is groundwater
pop served total = 985,315
pop. rec. gw = $0.17 \times 985,315$
= 167,504
nearest well @ 3 miles

of wells in system @ 3-4 miles ?
→ assume all groundwater wells 3-4 miles away

$$13,060 \div 10 = 1306$$

⑩ resources - irrig. well 500' N of site
⑪ not well head protect area

SITE REEVALUATION WORKSHEET

Site name : Jaquays Equipment Company
 EPA ID No. : AZD009017989
 State ID No. : 597
 City : Phoenix
 County : Maricopa

Site Evaluator : Ana I. Vargas
 Date : May 31, 1991

POTENTIAL RELEASES

☒ Groundwater
☐ Surface Water
☐ Air
☐ On-site/Direct contact

SCORING SCENARIOS	Best Case	Worst Case
GROUNDWATER ROUTE SCORE (Sgw) =	31.29	46.94
SURFACE WATER ROUTE SCORE (Sw) =	0.00	0.00
AIR ROUTE SCORE (Sa) =	0.00	0.00
TOTAL SCORE (Sm) =	18.09	27.13

NEW HRS MODEL CONSIDERATIONS

GROUNDWATER ROUTE :

SURFACE WATER ROUTE :

AIR ROUTE :

ON-SITE ROUTE :

GROUND WATER ROUTE WORKSHEET

RATING FACTOR	BEST CASE	WORST CASE	REF.	CONF.
OBSERVED RELEASE	0	0 45 45	1	2
ROUTE CHARACTERISTICS				
Depth to aquifer	2	4 0	2	3
Net precipitation	0	0 0	3	3
Permeability of unsaturated zone	3	3 0	4	3
Physical state	3	3 0	5	3
TOTAL ROUTE SCORE		10		
CONTAINMENT	3	3 0	6	2
WASTE CHARACTERISTICS				
Toxicity / Persistence	12	12 12 12	7	3
Hazardous waste quantity	1	1 1	8	2
TOTAL WASTE SCORE		13	13	
TARGETS				
Ground water use	2	6 2 6	9	3
Dist. to nearest well/pop. served	40	40 40 40	10	2
TOTAL TARGETS SCORE		46	46	
GROUND WATER ROUTE SCORE (Sgw)				
BEST CASE SCORE		31.29		
WORST CASE SCORE			46.94	

SURFACE WATER ROUTE WORKSHEET

RATING FACTOR	BEST CASE	WORST CASE		REF.	CONF.
OBSERVED RELEASE	0	0	0	0	
ROUTE CHARACTERISTICS					
Fac. slope/intervening terrain	0	0	0	0	
1 - year 24 - hour rainfall	0	0	0	0	
Distance to nearest surface water	0	0	0	0	
Physical state	0	0	0	0	
TOTAL ROUTE SCORE		0		0	
CONTAINMENT	0	0	0	0	
WASTE CHARACTERISTICS					
Toxicity / Persistence	0	0	0	0	
Hazardous waste quantity	0	0	0	0	
TOTAL WASTE SCORE		0		0	
TARGETS					
Surface water use	0	0	0	0	
Dist. to a sensitive environment	0	0	0	0	
Pop serv/dist to intake dwnstrm	0	0	0	0	
TOTAL TARGETS SCORE		0		0	
TOTAL SURFACE WATER ROUTE SCORE (Ssw)					
BEST CASE SCORE		0.00			
WORST CASE SCORE				0.00	

AIR ROUTE WORKSHEET

RATING FACTOR	BEST CASE	WORST CASE	REF.	CONF.
OBSERVED RELEASE	0	0	0	
DATE and LOCATION				
SAMPLING PROTOCOL				
WASTE CHARACTERISTICS				
Reactivity/Incompatibility	0	0		
Toxicity	0	0		
Hazardous waste quantity	0	0		
TOTAL WASTE SCORE				
TARGETS				
Population within a 4-mile radius	0	0		
Distance to sensitive environment	0	0		
Land use	0	0		
TOTAL TARGETS SCORE				
TOTAL AIR ROUTE SCORE (Sa)				
BEST CASE SCORE		0.00		
WORST CASE SCORE			0.00	
MIGRATION HAZARD MODE SCORE (Sm)				
BEST CASE		18.09		
WORST CASE			27.13	

SITE REEVALUATION WORKSHEET REFERENCES

1. Best Case: Observed release to groundwater, surface water, and air is not currently documented.

Worst Case: The Jaquays site is located in an area of known groundwater contamination. Groundwater in the area is contaminated with TCE, PCE, DCE, DCA, and TCA. Given the chemicals known to have been used on-site, unknown historical waste disposal practices, the regional characteristics for the area surrounding the site, depth to groundwater (64 feet), and high target population, the potential for an observed release to groundwater appears to exist.

2. In the area of the site, depth to groundwater is 64 ft. Obtained from :

Merged 35, 55 and GWSI Well Registry, Arizona Department of Water Resources. October 10, 1990.

Assigned value = 2

3. Net seasonal precipitation was calculated to be -16 inches annually. Obtained from :

"Arizona Precipitation, Evaporation and Evapotranspiration," Arizona Resources Information System. Cooperative Information No. 5. May 1975

Assigned value = 0

4. Permeability is $>10^{-3}$ cm/sec. Obtained from :

"General Soil Map, Maricopa County, Arizona", by Soil Conservation Service, United States Department of Agriculture. 1973.

Assigned value = 3

5. Physical state of hazardous substances - liquid

Assigned value = 3

6. Containment - Stained soil areas have been observed on-site.

Assigned value = 3

7. Toxicity/persistence matrix value: PCE

Matrix value for PCE = 12

8. Hazardous waste quantity: unknown

Assigned value = 1

9. Groundwater use within a 4-mile radius, obtained from:

Merged 35, 55 and GWSI Well Registry, Arizona
Department of Water Resources. October 10, 1990.

Assigned value = 2

10. Distance to nearest well/population served :

Nearest well is the RID #104, an irrigation well

Distance: 500 feet; Population served : Over 10,000 people.

Matrix value = 40